ABSTRACT OF THE DISCLOSURE

A method and apparatus for measuring the force applied by a first member coupled to a second member by a connecting body, by: transmitting a cyclically-repeating energy wave through the connecting body from a first location thereon to a second location thereon; measuring the transit time of the cyclically-repeating energy wave from the first location to the second location; and utilizing the measured transit time to produce a measurement of the force. In the preferred described embodiment, the connecting body is a fastening plate which fastens a drive shaft to a driven shaft and measures the torque output of the drive shaft.